

6LQ8

Medium-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

*For Use in Low-B+ Black-and-White TV Receivers
Having Low-Voltage Power Supplies*

ELECTRICAL CHARACTERISTICS

Bogey Values^a

Heater Voltage (AC or DC)	E_h	6.3	V
Heater Current.	I_h	0.775	A

Direct Interelectrode Capacitances

Without external shield

Triode Unit:

Grid to plate	C_{g-p}	2.8	pF
Input: G_1 to (K_T , $K_p + G_3p + IS$, H) .	C_i	4.2	pF
Output: P_T to (K_T , $K_p + G_3p + IS$, H) .	C_o	2.4	pF

Pentode Unit:

Grid No.1 to plate.	C_{g1-p}	0.12 max	pF
Input: G_1p to ($K_p + G_3p + IS$, G_2p , H) .	C_i	14	pF
Output: P_p to ($K_p + G_3p + IS$, G_2p , H) .	C_o	4.8	pF
Triode grid to pentode plate.	-	0.015 max	pF
Pentode plate to triode plate	-	0.17 max	pF

For the following characteristics, see Conditions

		Triode Unit	Pentode Unit	
Amplification Factor.	μ	46	-	-
Plate Resistance (Approx.).	r_p	4400	55000	75000 Ω
Transconductance.	g_m	10400	21000	23000 μmho
DC Plate Current.	I_b	15	16.5	20 mA
DC Grid-No.2 Current.	I_{c2}	-	3.1	3.5 mA
Cutoff DC Grid-No.1 Voltage	$E_{c1}(co)$	-6	-4.2	-4.2 V

Plate $\mu A = 100$

Conditions

Heater Voltage.	E_h	Bogey value	V
DC Plate Supply Voltage	E_{bb}	125 125 200	V
DC Grid-No.2 Supply Voltage	E_{cc2}	- 125 125	V
Grid No.1	-	Connected to negative end of R_k	
Cathode Resistor.	R_k	68 82 68	Ω

MECHANICAL CHARACTERISTICS

Operating Position.	Any
Type of Cathodes.	Coated Unipotential
Maximum Overall Length.	2.625 in
Maximum Seated Length	2.375 in
Maximum Diameter.	0.875 in
Dimensional Outline	See General Section
Envelope.	JEDEC T6-1/2
Base.	Small-Button Noval 9-Pin (JEDEC E9-1)



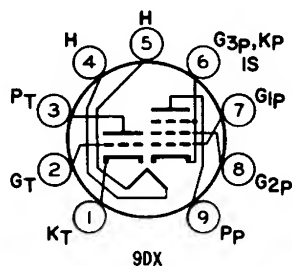
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TERMINAL DIAGRAM (Bottom View)

- Pin 1—Triode Cathode
- Pin 2—Triode Grid
- Pin 3—Triode Plate
- Pin 4—Heater
- Pin 5—Heater
- Pin 6—Pentode Grid No.3,
Pentode Cathode,
Internal Shield
- Pin 7—Pentode Grid No.1
- Pin 8—Pentode Grid No.2
- Pin 9—Pentode Plate



DESIGN-MAXIMUM RATINGS

For operation as a Class A₁ Amplifier Tube

		Triode Unit	Pentode Unit	
DC Plate Voltage	E_b	300	300	V
DC Grid-No.2 (Screen-Grid) Supply Voltage	E_{c2}	-	300	V
DC Grid-No.2 Voltage	E_{c2}	-	See Grid-No.2 Input Rating Chart	

at front of Receiving Tube Section

DC Grid-No.1 (Control-Grid) Voltage				
Positive-bias value	E_{c1}	0	0	V
Heater-Cathode Voltage				
Peak	e_{hkm}	±200		V
Average ^b	$E_{hk(av)}$	100		V
Heater Voltage (AC or DC) . . .	E_h	5.7 to 6.9		V
Grid-No.2 Input	P_{g2}			
For $E_{c2} \leq 150$ V	-	-	1	W
For $E_{c2} \geq 150$ V and ≤ 300 V .	-	-	See Grid-No.2 Input Rating Chart	

at front of Receiving Tube Section

Plate Dissipation	P_b	2	5	W
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MAXIMUM CIRCUIT VALUES

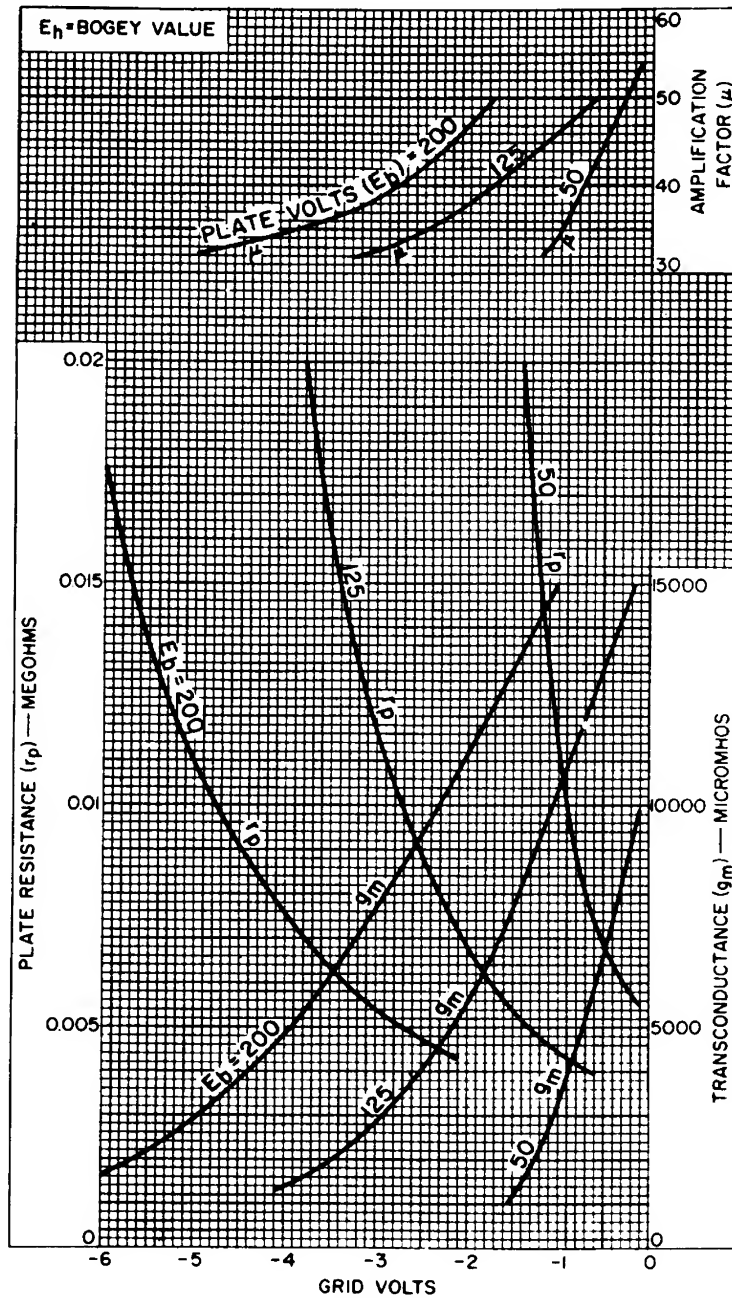
		Triode Unit	Pentode Unit	
Grid-No.1 Circuit Resistance	$R_{g1(ckt)}$			
For fixed-bias operation. . .	-	0.5	0.1	MΩ
For cathode-bias operation. .	-	1	0.25	MΩ

^a Unless otherwise specified.

^b Measured with a dc meter.



Typical Characteristics Triode Unit



92CM-12623R1



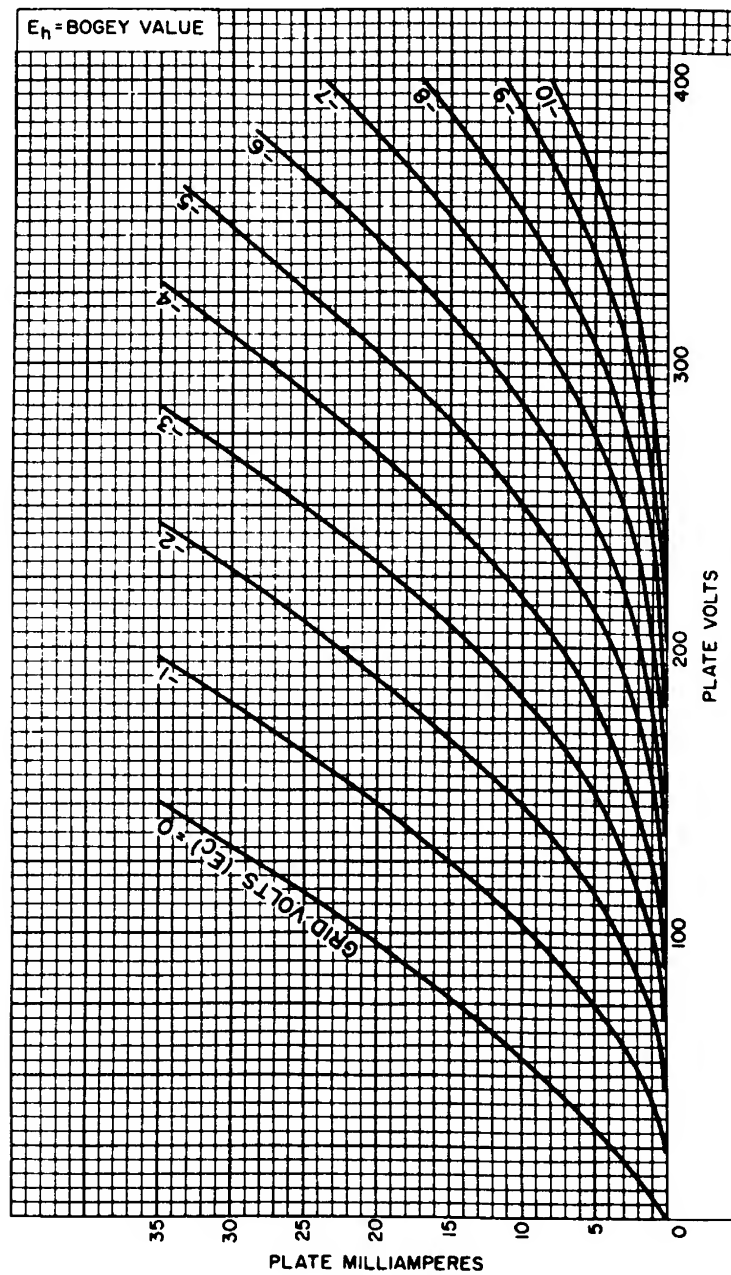
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Typical Plate Characteristics

Triode Unit



92CM-12616R1

DATA 2

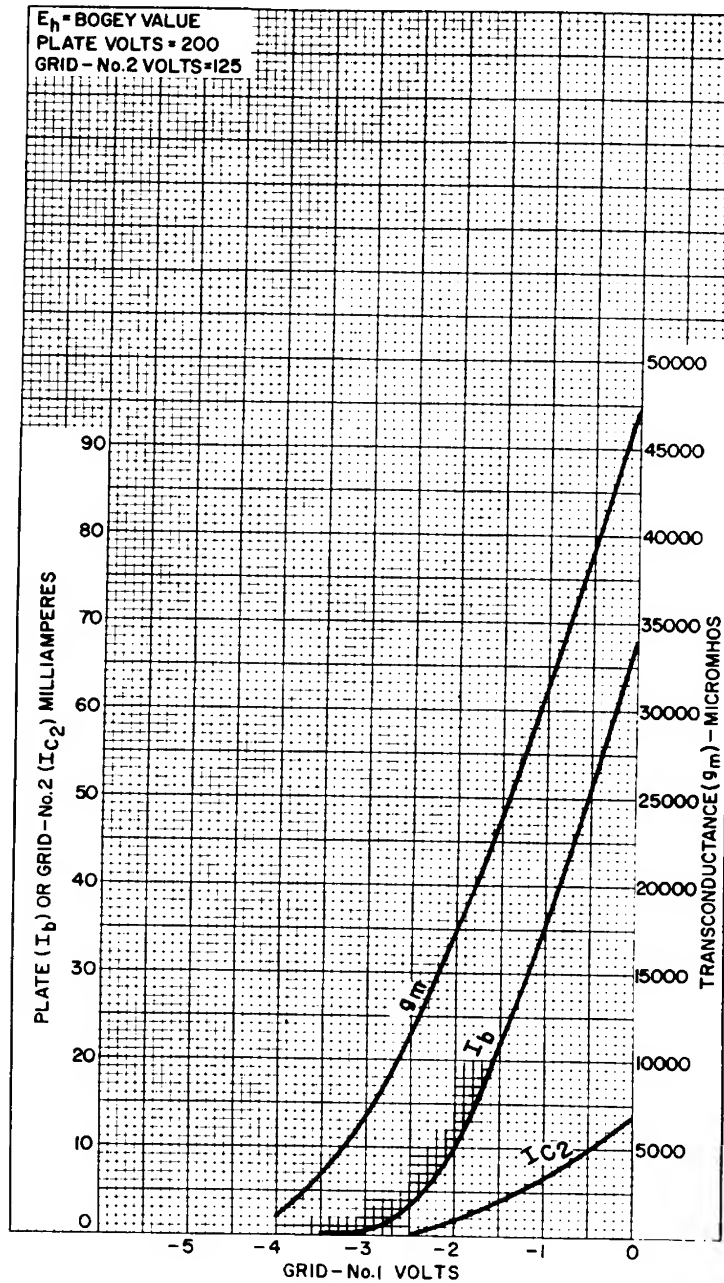
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Typical Characteristics

Pentode Unit



92CM-13750



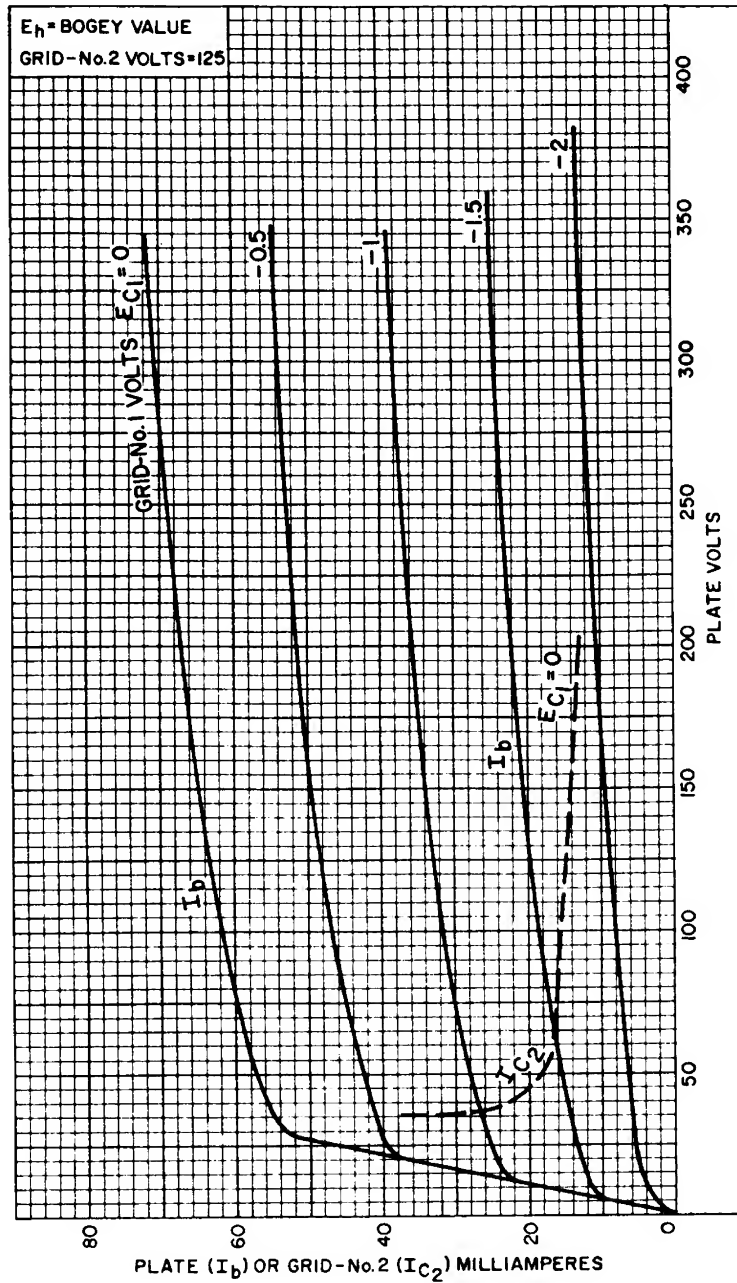
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Typical Plate Characteristics

Pentode Unit



92CM-13751

